



Patent and Trademark page 1 of 10
09/465,131

#9/B
1/31/02
DOCKET NO. 99-099/RCE
65611

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Sarathy Rajagopalan,
et al.

Serial No.: 09/465,131

Filed: December 16, 1999

For: METHOD AND APPARATUS FOR
THERMAL PROFILING OF
FLIP-CHIP PACKAGES

Art Unit: 2859

Examiner: Yaritza Guadalupe

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify that this paper is being
deposited with the United States Postal
Service as first class mail in an envelope
addressed to: Commissioner for Patents,
Washington, D.C. 20231, on this date.

October 24, 2001
Date


Eric James Whitesell
Reg. No. 38,657

RECEIVED
JULY 28 2001
1C 2800 MAIL ROOM

AMENDMENT "C" UNDER 37 C.F.R. § 1.114

Box RCE
Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Please enter the following response to the Office
Action mailed on July 24, 2001:

In the Specification:

~~Delete the following paragraph beginning on page 2, line 28:~~

"The inventors have discovered that using these methods does not accurately profile the temperature at the interface between the die and the bonding pad. The inventors have discovered that the temperatures of the previously used methods can vary as much as 10° C from the actual interface temperature. This leads to sub-optimal bonding of the die to the bonding pad. This increases chip failure rate and reduces chip reliability, and is therefore undesirable."

~~Insert the following paragraph before the paragraph beginning on page 4, line 8:~~

--The inventors have discovered that previous methods do not accurately profile the temperature at the interface between the die and the bonding pad. The inventors have discovered that the temperatures of previous methods may vary as much as 10° C from the actual interface temperature. This leads to sub-optimal bonding of the die to the bonding pad. This increases chip failure rate and reduces chip reliability, and is therefore undesirable.--

In the Claims:

Substitute the following amended claims for the like numbered pending claims:

- R²*
1. (twice amended) A thermal profiling device for a flip-chip integrated circuit comprising:
a packaging substrate of a flip-chip integrated circuit;